

We claim:

1. An isolated polynucleotide comprising a truncated LEF-1 polynucleotide or homolog thereof lacking nucleotides encoding a β -catenin binding domain and not adjacent to nucleotide sequences to which it is naturally adjacent.
2. The polynucleotide of claim 1, wherein the polynucleotide encodes a polypeptide having about 283 amino acids beginning at a methionine codon within exon 3 of the human LEF-1 gene.
3. The polynucleotide of claim 1, wherein the polynucleotide encodes a polypeptide beginning at about amino acid residue 116 of human LEF-1.
4. An isolated polynucleotide having regulatory activity and comprising nucleotides in intron 2 of human LEF-1 gene and within about 50 nucleotides 5' of the third exon of human LEF-1 gene and homologs thereof.
5. A purified polypeptide encoded by a polynucleotide of claim 1.
6. Isolated antibodies that bind specifically to a polypeptide encoded by a polynucleotide of claim 1, or to immunogenic fragments thereof, with the proviso that the antibodies do not bind to human LEF-1 polypeptide or immunogenic fragments thereof.
7. The antibodies of claim 6, wherein the antibodies are monoclonal.
8. An isolated polynucleotide comprising a polynucleotide sequence of claim 4 operably linked to a polynucleotide of claim 1.
9. A method for diagnosing or monitoring the recurrence or predisposition to colon cancer in a subject comprising detecting the level of expression of full length LEF-1 and truncated LEF-1 polynucleotide or the level of full length LEF-1 and truncated LEF-1 polypeptide in a sample from the subject, wherein an elevated level of full length LEF-1 polynucleotide or polypeptide is indicative of the presence of colon cancer or predisposition thereto.
10. The method of claim 9, wherein the subject is a human.
11. A kit useful for for diagnosing or monitoring the recurrence or predisposition to colon cancer in a subject comprising a first container containing a nucleic acid probe for detecting the level of expression of full length LEF-1 and truncated LEF-1 polynucleotide.

12. A kit useful for for diagnosing or monitoring the recurrence or predisposition to colon cancer in a subject comprising a first container containing an antibody for detecting the level of expression of full length LEF-1 and truncated LEF-1 polypeptide.
13. An isolated polypeptide comprising a LEF1 amino acid sequence consisting of a C-terminal fragment of LEF1, wherein the C-terminal fragment is from amino acid 116 to 398 of LEF1 and wherein the LEF1 amino acid sequence is not adjacent to an amino acid sequence that is naturally adjacent to the LEF1 amino acid sequence.
14. A method of treating or inhibiting colon cancer in a subject comprising contacting a cell with an antagonist of a regulatory region encoding full length LEF-1 or an agonist of the polynucleotide of claim 4, thereby treating or inhibiting colon cancer.
15. A method of treating or inhibiting colon cancer in a subject comprising contacting a cell with an antagonist of a full length LEF-1 polypeptide or an agonist of a truncated LEF-1 polypeptide, thereby treating or inhibiting colon cancer.
16. The method of claim 15, wherein the truncated LEF-1 polypeptide is a polypeptide of claim 5.
17. A method for screening for an agent useful for the treatment of colon cancer comprising contacting a promoter sequence of LEF-1 or a truncated LEF-1 promoter operably associated with a detectable marker with a test agent, and detecting a decrease in detectable marker from the promoter of LEF-1 or an increase in detectable marker from the truncated promoter is indicative of an agent that is useful for the treatment of colon cancer.